

REMARKS

Applicants respectfully acknowledge receipt of the Final Office Action mailed October 27, 2006.

In the Final Office Action, the Examiner rejected claims 1-3, 5, 6, 8, 9, 37, 38, 41, and 42 under 35 U.S.C. § 102(b) as being anticipated by *Nagaoka et al.* (U.S. Patent No. 5,724,635); rejected claims 4, 7, and 10 under 35 U.S.C. § 103(a) as being unpatentable over *Nagaoka* in view of *Kobayashi et al.* (U.S. Patent Pub. No. 2002/0098437); rejected claims 30 and 32 under 35 U.S.C. § 103(a) as being unpatentable over *Nagaoka* in view of *Tokimatsu et al.* (U.S. Patent Pub. No. 2003/0219291); and objected to claims 29 and 31 as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

By this Amendment, Applicants propose to amend claim 1. Upon entry of this Amendment, claims 1-44 will remain pending, with claims 11-28, 33-36, 39, 40, 43, and 44 withdrawn from consideration. Of the claims under examination, claim 1 is independent. Claims 11-28, 33-36, 39, 40, 43, and 44 were previously withdrawn from consideration in the "Response to Restriction Requirement" filed April 12, 2006.

The originally-filed specification, claims, abstract, and drawings fully support the amendments to claim 1. No new matter has been introduced.

Applicants gratefully acknowledge the Examiner's indication of allowable subject matter in claims 29 and 31. Applicants, however, have not rewritten claims 29 and 31 to include all of the limitations of base claim 1 and any intervening claims because at least independent claim 1 is patentably distinguishable over the cited prior art.

Applicants traverse the rejections above and respectfully request reconsideration for at least the reasons set forth below.

I. 35 U.S.C. § 102(b) REJECTION

Claims 1-3, 5, 6, 8, 9, 37, 38, 41, and 42 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Nagaoka*. Applicants respectfully disagree with the Examiner's arguments and conclusions and submit that independent claim 1 is patentably distinguishable over *Nagaoka* at least for the reasons set forth below.

In order to properly establish that *Nagaoka* anticipates Applicants' claimed invention under 35 U.S.C. § 102, each and every element of each of the claims in issue must be disclosed, either expressly or under principles of inherency, in that single prior art reference. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." See M.P.E.P. § 2131, quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Nagaoka discloses a developing device including a housing 11 with a circulating chamber 1, including a developer roller 5 and a transferring screw 13, a transferring screw 14, a stirrer 2, and an outlet opening 60. (*Nagaoka*, col. 5, ll. 10-43 and FIGs. 3 and 4).

Nagaoka, however, fails to disclose a housing including a projecting portion which projects outwardly in an axial direction from an end portion of the developer roller 5 and supports end portions of the transferring screws 13 and 14 and the stirrer 2. In addition, *Nagaoka* fails to teach or suggest a toner supply opening formed above a position where the transferring screw 14 and the stirrer 2 face each other in the projecting portion.

As illustrated in FIG. 4 of *Nagaoka*, housing 11 fails to include a projecting portion which projects outwardly in an axial direction from an end portion of the developer roller 5. Rather, the developer roller 5 and the transferring screws 13 and 14 are all the same length, and end portions of the transferring screws 13 and 14 and the stirrer 2 are not all supported by a projecting portion (emphases added). Moreover, FIGs. 3 and 4 of *Nagaoka* clearly do not show the outlet opening 60 formed above a position where the transferring screw 14 and the stirrer 2 face each other (emphases added). Instead, “[t]he outlet 60 is open only at the place where it interfaces with the blades 2a of the stirrer 2[,] which is at the lower side thereof, as shown by broken lines in FIG. 4.” (*Nagaoka*, col. 5, line 66 - col. 6, line 1, and FIGs. 3 and 4).

As disclosed in the present invention, since end portions of the developer supplying/collecting section 25 and the first and second stirring sections 26 and 27 are supported by the projecting portion 20A and protrude outwardly with respect to the end portion of the developer carrying member 24, re-supply of insufficiently charged recycled toner is suppressed as supply of the recycled toner from the developer supplying/collecting unit 25 to the first and second stirring sections 26 and 27 is conducted in the projecting portion 20A (emphasis added). Similarly, supply of charged toner is conducted effectively, as the toner supply opening 20C is formed above a position where the first and second developer stirring sections 26 and 27 face each other in the projecting portion 20A (emphasis added).

Accordingly, with respect to independent claim 1, *Nagaoka* fails to teach or suggest the claimed combination, including, *inter alia*:

“a toner supply opening formed above a position where...
first and second developer stirring sections face each other

in [a] projecting portion...[and a housing including the projecting portion,] wherein the projecting portion projects outwardly in an axial direction from an end portion of [a] developer carrying member and supports end portions of [a] developer supplying/collecting section and the first and second developer stirring sections" (emphases added).

The Examiner, therefore, has not met the essential criteria for showing anticipation, wherein "each and every element of each of the claims in issue must be found, either expressly described or under principles of inherency, in...a...single reference." See M.P.E.P. § 2131. Accordingly, independent claim 1 is patentable over *Nagaoka*. Applicants therefore request that the rejection of claim 1 under 35 U.S.C. § 102(b) be withdrawn and claim 1 be allowed.

Moreover, claims 2, 3, 5, 6, 8, 9, 29, 31, 37, 38, 41, and 42 are allowable at least due to their dependence from independent claim 1. In addition, at least some of the dependent claims may recite unique combinations that are neither disclosed nor suggested by the cited art, and therefore some also are separately patentable.

II. 35 U.S.C. § 103(a) REJECTIONS

Claims 4, 7, and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nagaoka* in view of *Kobayashi*; and claims 30 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nagaoka* in view of *Tokimatsu*.

As noted above, *Nagaoka* fails to disclose a toner supply opening formed above a position where first and second developer stirring sections face each other in a projecting portion, and a housing including the projecting portion which projects outwardly in an axial direction from an end portion of a developer carrying member and supports end portions of a developer supplying/collecting section and the first and second developer stirring sections (emphases added).

Similarly, *Kobayashi* and *Tokimatsu* fail to overcome these deficiencies. The Examiner alleges that “*Kobayashi* teaches the deficiencies of *Nagaoka* (see Claim 14)...[namely,] wherein the toner has a volume average particle diameter of $3 \mu\text{m}$ to $5 \mu\text{m}$, and, the carrier has a volume average particle diameter of $5 \times D_t (\mu\text{m})$ to $10 \times D_t (\mu\text{m})$ ” (*Office Action*, p. 6, ll. 7-11); and “*Tokimatsu* teaches the deficiencies of *Nagaoka* (Fig. 1, ref. #81 and ref. #8)...[namely,] a cleaning section for removing toner which remains on the image carrying member after the toner image is transferred; and a toner recycling section for collecting the toner removed from the image carrying member to be reused...” (*Id.* at p. 7, ll. 9-15).

Such teachings, even if present in *Kobayashi* and *Tokimatsu*, fail to teach or suggest the claimed “a toner supply opening formed above a position where...first and second developer stirring sections face each other in [a] projecting portion...[and a housing including the projecting portion,] wherein the projecting portion projects outwardly in an axial direction from an end portion of [a] developer carrying member and supports end portions of [a] developer supplying/collecting section and the first and second developer stirring sections.” Accordingly, claims 4, 7, 10, 30, and 32 are allowable at least due to their dependence from independent claim 1.

III. CONCLUSION

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 1-10, 29-32, 37, 38, 41, and 42 in condition for allowance. Applicants submit that the proposed amendments of claim 1 do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier

claimed or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

Furthermore, Applicants respectfully point out that the final action by the Examiner presented some new arguments as to the application of the art against Applicants' invention. It is respectfully submitted that the entering of the Amendment would allow the Applicants to reply to the final rejections and place the application in condition for allowance.

Finally, Applicants submit that the entry of the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicants submit that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the entry of this Amendment, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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